Date: Tue, 13 Apr 93 04:30:02 PDT
From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>
Errors-To: Packet-Radio-Errors@UCSD.Edu
Reply-To: Packet-Radio@UCSD.Edu
Precedence: Bulk
Subject: Packet-Radio Digest V93 #98
To: packet-radio

Packet-Radio Digest Tue, 13 Apr 93 Volume 93 : Issue 98

Today's Topics:

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>
Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

Date: Tue, 23 Mar 93 08:38 CST
From: dennis@nanovx.atl.ga.us (Dennis Boylan)
Subject: [GRAPES-L:23] Re: wa4dsy modem ordering info
To: ggjns

GRAPES (A Georgia Organization of local Ham Radio packet groups) is selling
full kits of the Heatherington 56KB R.F. Modem for $250.

You will need a transverter with a 28 mHz I.F.
for the band of your choice, case, chassis, jacks, power supply and frequency
determining crystals.. the printed circuit boards, documentation,
State EPROM, support diskette and all other parts are supplied..

The modem puts out about 1 mw of drive with a 28 mHz I.F.

Any transverter used should switch as quickly as possible in the 5-15 ms range
to be effective.. we use the Microwave Modules MMt 432-28S units however
these are getting difficult to find unless you find a used on at a hamfest.
The last few we purchased new were also pretty expensive ($389 for the
430 mHz units). We believe that the 220 mHz units were quite a bit cheaper
but we never bought any of those new. On the hamfest market, we have been
paying from $125 to $185 for used, usually working units.

Sinclabs (division of Sinclair Research) in Canada is shipping
a 220 transverter which has good characteristics and an even better
price tag ($289). We have two of these units and they seem to work fine.
They also suggested that they may develop a 430 unit at a later date.

The Transverter must be linear as the modem has amplitude
variations as part of the conveyed modulation, which must be reproduced
by the transverter.. Usually any transverter capable of SSB operation is
suitable if it switches quickly enough..

We also sell a printed circuit board set,
that includes the State EPROM, docs and support diskette for $110..
Documentation sets are $20 (US) and we have a VHS or Beta
Video tape featuring Dale Heatherington explaining the Beta modem design
for $20 (US) (upon special request, not normally a "from stock item").

Documentation set orders are creditable toward
parts kits or boards sets. Board sets are creditable toward full kits.

We are selling these to support our non-profit network building
activities.

If you wish to have an information flyer that goes into more detail,
please send your U.S. Mail address.

We pay U.S. shipping. We require that the approximate difference between
domestic ground delivery and premium shipping be sent in advance
(such as overseas 2nd day air which can cost up to $60).
The kits weigh about 2.5 pounds. I can put 3-4 kits in a shipping box
thereby saving .5 pounds per kit by saving the weight of the box and packing.
Please send orders (Order forms are not required,
just send a letter) and your check payable in U.S. funds to:

GRAPES Inc.
P.O. Box 871
Alpharetta, Ga 30239-0871

Personal note about E-mail (from KD4NC, not from GRAPES)
If you send questions (or order inquiries) via USENET mail remember that
I am not responsible for USENET mail reliability.. If you don't get a reply,

please try again, perhaps with a different mail gateway.. Just because
you don't get a bounce message, that doesn't mean that I received your
message.. This is particularly true of Overseas E-mail with where
E-mail paths are often one-way.. Please don't post bad stuff about
my lack of response to misc.radio.packet or any group, this job
is thankless enough as it is.... I appreciate your patience.
I don't like to post responses or Ads to misc.radio.* because
I know that in many location, this is gateway'd out over
packet radio. Also, misc.radio is not for commercial postings..
So I post a pointer to my E-mail address periodically and stop at that.

GRAPES is a volunteer non-profit organization (A regional Packet Radio Club).
No one here makes any money off of this.. it's all volunteer labor.

Thanks
73's

Doug KD4NC
gatech!kd4nc!kd4nc
or
emory!kd4nc!kd4nc

End of Included Message. To subscribe to GRAPES-L, send a message to
"listserv@knuth.mtsu.edu" with an empty subject line and a message body
containing the line "SUBSCRIBE GRAPES-L Your_Human_Name".

--
John N Schmidt KD4EAI, Lab Director + 615-898-5561 M-F 1300-2230Z <7-4:30>
Middle Tennessee State University ++ 615-898-5538 or 615-896-2871 FAX 24H
1500 Greenland Drive, PO Box 135 +x+ ggjns@Knuth.MTSU.edu via the Internet
Murfreesboro, TN 37132-0135 USA +xx+ MTSU Center for Remote Sensing and GIS
AX.25-TCP/IP Adr [44.34.50.50] +xxx+ Home of Packet/Internet gateway W4EFQ

Date: 13 Apr 93 00:42:12 GMT
From: news-mail-gateway@ucsd.edu
Subject: AA4RE BBS Mailing list
To: packet-radio@ucsd.edu

Thanks to Chris Spell <spell@seq.uncwil.edu>, there is now a mailing
list for AA4RE BBS program sysops. I hope all will subscribe. It
should be very helpful to all of us.

Roy, AA4RE

 - - - -

To send a message to the mailing list send it to:

aa4re@matsci2.uncwil.edu

- - - -

To subscribe to the mailing list a user needs to send a message to:

aa4re-request@matsci2.uncwil.edu

With the following in the body of the message:

subscribe aa4re your_account_name@your.address.whereever

- - - -

To unsubscribe one would send this text in the message:

unsubscribe aa4re your_account_name@your.address.whereever

Date: 13 Apr 93 00:48:36 GMT
From: news-mail-gateway@ucsd.edu
Subject: AA4RE BBS Mailing list
To: packet-radio@ucsd.edu

Thanks to Chris Spell <spell@seq.uncwil.edu>, there is now a mailing list for AA4RE BBS program sysops. I hope all will subscribe. It should be very helpful to all of us.

Roy, AA4RE

- - - -

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subscribe aa4re your_account_name@your.address.whereever

 - - - -

   To unsubscribe one would send this text in the message:

       unsubscribe aa4re your_account_name@your.address.whereever

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Date: Mon, 12 Apr 1993 17:11:33 GMT
From: news.acns.nwu.edu!nucsrl!tellab5!jwa@network.UCSD.EDU
Subject: A New DSP Rebutal
To: packet-radio@ucsd.edu

In Article: 28187 of rec.radio.amateur.misc (Subject: Re: A New DSP)
Date: 9 Apr 93 13:52:52 GMT
michael@vk2bea.UUCP (Michael G. Katzmann) replied to article
<1993Apr2.144727.29661@tellab5.tellabs.com> jwa@tellabs.com (John W. Albert)
 >
 >   A NEW DSP FOR PACKET

 >Pre-filtering
 >
 >The first function is a sixth order Chebyshev bandpass filter. The
 >filter reduces noise and improves the performance of the A.G.C.

Chebyshev filter??? This will really mess up the data! You want to
maintain the integrity of the data, but the poor group delay response
of this filter will create alot of intersymbol interference. Surely
a Bessel, FIR or other linear phase filter is what should be used.
(or have I miss-understood the use of this device??)

Heres my reply

We selected the the Chebyshev filter because it has the best rejection
in the stopband. Because the modem was designed for the crouded H.F.
packet frequencies, we needed the best filter that provided out of band
rejection. It's true that the filter has poor group delay but we found
(using computer simulation) that different filter types performed about
the same. Another filter may have better group but you sacrafice the
stopband rejection.

Chebyshev filter are some what linear within the bandpass, however, the
group delay is non-linear at the band edges. We simply normalized it to
obtain the best of two worlds.

Not mentioned in the article was (it appeared in the Oct 92 issue of QEX)
a new filter called the "Bowtie" which is used in the channel filters

(Discriminator circuit). The Bowtie uses two two pole bandpass filters (usually state variable types) In the mark and space channel to provide maximum seperation and linear phase. An article will appear in future issue of QEX.

Jack Albert Fellow Radio Buff
Tele (708) 512-7854
Tellabs, Inc. FAX (708) 852-7346
4951 Indiana Ave. jwa@tellabs.com
Lisle, IL
60532

Do you have a certain itch that's so private,
you'll only discuss it with your physician?

Date: Mon, 12 Apr 1993 13:19:06 GMT
From: usc!zaphod.mps.ohio-state.edu!news.acns.nwu.edu!nucsrl!tellab5!jwa@network.UCSD.EDU
Subject: A new DSP rep
To: packet-radio@ucsd.edu

in Article: 4294 of rec.radio.amateur.packet
jack@larc.nasa.gov (Jack Dunn) replies to
article 26676@tellab5.tellabs.com, jwa@tellabs.com (John W. Albert) writes:

>In case your interested in DSP's Here is an article that
>I worte, that appeared in the January 92 issue of QEX
>
>
> A NEW DSP FOR PACKET
>where around for about 25 years. In the 90's, it appears that
>the hottest item is the DSP. Again the technology has been around
>for about twenty years and it's finally making it's way into the

Where and for how much can this board be purchased?

Jack Dunn
N4NEM

The DSP25 will be available from Willco Electronics
P.O. Box 788 New Lenox, IL 60451.

Jack Albert Fellow Radio Buff
Tele (708) 512-7854
Tellabs, Inc. FAX (708) 852-7346
4951 Indiana Ave. jwa@tellabs.com
Lisle, IL
60532

Do you have a certain itch that's so private,
you'll only discuss it with your physician?

Date: 12 Apr 93 13:23:21 GMT
From: news-mail-gateway@ucsd.edu
Subject: Cable TVI interference
To: packet-radio@ucsd.edu

(this probably should move to rec.radio.amateur.policy...there's probably some easy way to do it with a real newsreader, but with mail ya takes yer lumps..)

> I have a friend that runs some packet BBS programs in the Philadelphia
>area. Just recently, the cable company stopped by to identify that he
>has been interferring with Channel 18 cable TV. This happens to be the
>fundamental frequency for the entire 2 meter band. Although the cable
>company acknowledges that he is completely within the legal limits, he
>expects that the cable company is getting ready to finger him with his
>neighbors and start a neighbor-to-neighbor war. The actually problem
>area seems to be confined to within about 500 to 1000 ft (just a few
>city blocks from his transmitter). Supposably, the FCC has already been
>contacted, however, he hasn't seen or heard from any FCC officals
>yet.

i would be surprised if the FCC didn't laugh in the face of the CATV people.

We're not using their frequencies - THEY'RE USING OURS! He should go to 1.5 Kw output 8)...but seriously, it's the CATV folks that have the problem here.

possible actions include running around town taking measurements of leaks and showing the cable company where their problems are (copies to FCC field folks), setting up your own news releases to pre-empt any hostile CATV press: something like "CATV signals intefere with safety communications" especially if there are leaks in the aircraft band and there's an airport nearby. but you got to make an effort to get ahead of the negative press or else you'll be tarred and feathered before you can even say anything.

maybe you can find out what the CATV schedule is for system certification. they have to pass a system leakage check annually. the local CATV folks here have vans equipped with scanners and yagis and the servicemen are supposed to report back the locations where they find one of the marker signals above some threshold to give the maintenance crew some idea of where to start working.

"CATV interferes with Shuttle Communications Experiment" (well...the SAREX uplink is around 145 MHz.....)

maybe it's also time to check in with the other 2-way radio users to see if they have problems with cable intereference on their frequencies?

73 bill wb9ivr%pubs%genav.mlb@ns14.cca.cr.rockwell.com

Date: Mon, 12 Apr 1993 20:08:56 GMT
From: swrinde!zaphod.mps.ohio-state.edu!saimiri.primate.wisc.edu!sal.wisc.edu!larry.sal.wisc.edu!sde@network.UCSD.EDU
Subject: Cable TVI interference
To: packet-radio@ucsd.edu

Before getting too excited about the cable company's maintenence, etc., be sure the interference problem isn't caused by RF getting into the TV receiver on the cable shield. Wrapping a few turns of the cable around the TVI is ralated to harmonic operation. If the cable channel is not a harmonic (or the fundamental) of the transmitting frequency, the TVI is probably not caused by leakage.

Scott Ellington K9MA
sde@larry.sal.wisc.edu

Date: 12 Apr 93 22:37:39 GMT
From: zds-ux!bjstaff@uunet.uu.net
Subject: Cable TVI interference
To: packet-radio@ucsd.edu

This weekend, while visiting my in-laws in Madison, Wisconsin, I noticed that one of the cable channels was being interfered with from time to time. Just for the heck of it, I grabbed my 2m HT and repeater directory, set my HT to each Madison repeater's output, and waited. Bingo! Each time a certain repeater transmitted, the cable got messed up. Needless to say, I haven't shared my discovery with the in-laws yet. :-)

73,

+===+
| Brad Staff   616-982-5791 (tel) |
| Zenith Data Systems   616-982-5997 (fax) |
| Hilltop Road   b.staff@zds.com |
| St. Joseph, MI 49085   aa8if |
+===+

Date: 12 Apr 1993 07:53:21 -0500
From: usc!zaphod.mps.ohio-state.edu!darwin.sura.net!knuth.mtsu.edu!knuth.mtsu.edu!
not-for-mail@network.UCSD.EDU
Subject: GRAPES vs (?) WA4DSY ?
To: packet-radio@ucsd.edu

In <C5C8Mt.Jv6@lysator.liu.se> pme@lysator.liu.se (Peter Enderborg) writes:

>What is the differens ? Or is it the same modem ? Modulation ?
>And where do I get it ? Do I find it at any hamshops ?
>Is there different versions ? And how much do I have to pay ?

>/Peter SM5OHI

Hi Peter. This response is forwarded from the GRAPES-L mailing list at
knuth.mtsu.edu [161.45.1.1]. Not a high traffic list but at least it
contains an answer to your question.

Date: 12 Apr 93 11:10:05
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net
Subject: GRAPES vs (?) WA4DSY ?
To: packet-radio@ucsd.edu

In article <C5C8Mt.Jv6@lysator.liu.se> pme@lysator.liu.se (Peter Enderborg)
writes:

>   What is the differens ? Or is it the same modem ? Modulation ?
>   And where do I get it ? Do I find it at any hamshops ?
>   Is there different versions ? And how much do I have to pay ?

The other person responding did not answer your question I think. The
GRAPES modem IS the WA4DSY modem.

Bob

--

Robert W. McGwier | n4hy@ccr-p.ida.org
Center for Communications Research | Interests: amateur radio, astronomy,golf
Princeton, N.J. 08520 | Asst Scoutmaster Troop 5700, Hightstown

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Date: Mon, 12 Apr 1993 20:34:15 GMT
From: usc!howland.reston.ans.net!bogus.sura.net!darwin.sura.net!
news.duc.auburn.edu!lab13!morgage@network.UCSD.EDU
Subject: Help!
To: packet-radio@ucsd.edu

     I need gifs, clip art, whatever of ham radio stuff for our club's newsletter
and posters. I would like thing like pictures of satellites, radios, adventurous
ham
erecting atennae in unusual (or otherwise) places, etc. Thing that non hams can
relate to would be best. If anyone has any please email me and let me know. We
can
work out how to transmit them then. Thanks for the help!

Eric Morgan
N2LGD
....
....

Date: Mon, 12 Apr 1993 15:08:49 GMT
From: swrinde!zaphod.mps.ohio-state.edu!rpi!news.crd.ge.com!crd.ge.com!
SALTZMAN@network.UCSD.EDU
Subject: mfj1278
To: packet-radio@ucsd.edu

I expect to acquire an mfj1278 converter shortly.
Is there any information that could be shared on
mods, problems, configurations, etc? Is there
any PC software (other than mfj's) available?

Please send info via email, or direct me to ftp site.

Thanks very much
==
Robert B. Saltzman (Bob)   Internet: saltzman@crd.ge.com
Information System Operation   Snailnet: Bldg KW, Room C120, PO Box 8
General Electric Company   AT&Tnet: 518-387-5828(B), 387-6560(FAX),

Corporate Research and Development   518-370-2222(H)
Schenectady, New York 12301 USA   ICBMnet: 42 50 04 N, 73 54 14 W, Alt 246
AEMT-4 Paramedic/Firefighter   HAMnet: WB2ARK (advanced)
==========

Date: Sun, 11 Apr 93 15:14:41 EDT
From: thehulk!centauri.dmc.com!ckent@uunet.uu.net
Subject: Possible to convert scanner to RO packet station?
To: packet-radio@ucsd.edu

In article <C58CLu.9B2@panix.com> (rec.radio.amateur.packet), msiso@panix.com
(Michael Sisolak) writes:
>
>   I'm intersted in getting into packet radio but am afraid of the cost
> and jumping right in. I curently own a scanner (of the handheld style) and
> was thinking that there must be some way to hook up the scanner to a PMP
> kinda deal to be able to recieve and watch the packet channels. I can do my
> own electronic work and would be willing to do scanner mods. Basically I'm
> looking for the cheapest way to convert a scanner to read only packet on my
> PC. Is there any hope?
>

  I currently monitor packets with an AR2500 scanner and a
Kantronics KAM All-Mode TNC. If your scanner has a
speaker/headphone jack, you should be able to feed that audio
signal right into to a TNC, (or PMP) provided your scanner
covers packet frequencies.

Regards,

  Chris Kent

Chris Kent   Internet: ckent@centauri.dmc.com
375 Pond St.
Dunstable, MA 01827-2310   Phone: (508) 649-9950

Date: 12 Apr 1993 20:51:21 GMT
From: usc!howland.reston.ans.net!bogus.sura.net!darwin.sura.net!mojo.eng.umd.edu!
tedwards@network.UCSD.EDU
To: packet-radio@ucsd.edu

References <734345121.AA00794@his.com>, <1993Apr09.145903.49266@watson.ibm.com>,

<1993Apr11.005402.14265@ke4zv.uucp>
Subject : Re: Rich Man's Packet ... : -)

In article <1993Apr11.005402.14265@ke4zv.uucp> gary@ke4zv.UUCP (Gary Coffman) writes:
>In article <1993Apr09.145903.49266@watson.ibm.com> kf5mg@vnet.ibm.com (Jack Snodgrass) writes:
>The tricky part is to get a phase linear IF filter for the required
>bandwidth. That was the most difficult part of the GRAPES modem
>design. You need a filter that is very phase linear across it's passband,
>but that has very good adjacent channel rejection.

This sounds like a job for DSP! What are the IF, bandwidth, and rejection specs?

-Thomas N3HAU

End of Packet-Radio Digest V93 #98
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